



SERVICE MANUAL

AWA MODEL

B411

Model B411 is a mains operated modular stereo player of 3 Watts output per channel.

SPECIFICATIONS

Power Output:	3 watts R.M.S. music power per channel.
Power Supply:	240V 50Hz A.C. only
Voice Coil Impedance:	8 ohms.
Pick Up Cartridge:	SC 5M] B.S.R. C129 Changer.
Replacement Stylus:—	ST 12]
Replacement Stylus:—	51D AT 100 Changer.

DISMANTLING B411

Undo 4 PK screws in the rubber feet on the under side of unit, insert a spiked tool in one of the rear screw holes of the bottom cover and pull to remove.

P.C.B. REMOVAL

Remove slider control pot knobs from unit and undo the securing nut and washer from the stereo headphone socket. Stand unit on its side and remove P.C.B. by gently unclipping the P.C.B. mounting legs and lifting clear.

TURNTABLE REMOVAL

Pull off P.U. tags from the strip, also unplug turntable overwind socket from P.C.B. (2 way socket Red and Yellow leads). Undo turntable motor A.C. (Blue and Brown leads) from strip connector. Remove the screw securing mains earth tag. Turn transit screws fully clockwise then prise up locking tongue of clip end of each transit screw. Lift turntable clear of unit.

ESCUTCHEON REMOVAL

Before escutcheon removal can be attempted the P.C.B. must be removed as above. With the unit standing on one end, unclip 6 mounting legs which secure escutcheon fascia. Undo the 2 screws securing the mains switch and undo the 3 screws supporting the rear under side of escutcheon. Loosen 2 screws securing the front under side of escutcheon and slide escutcheon out.

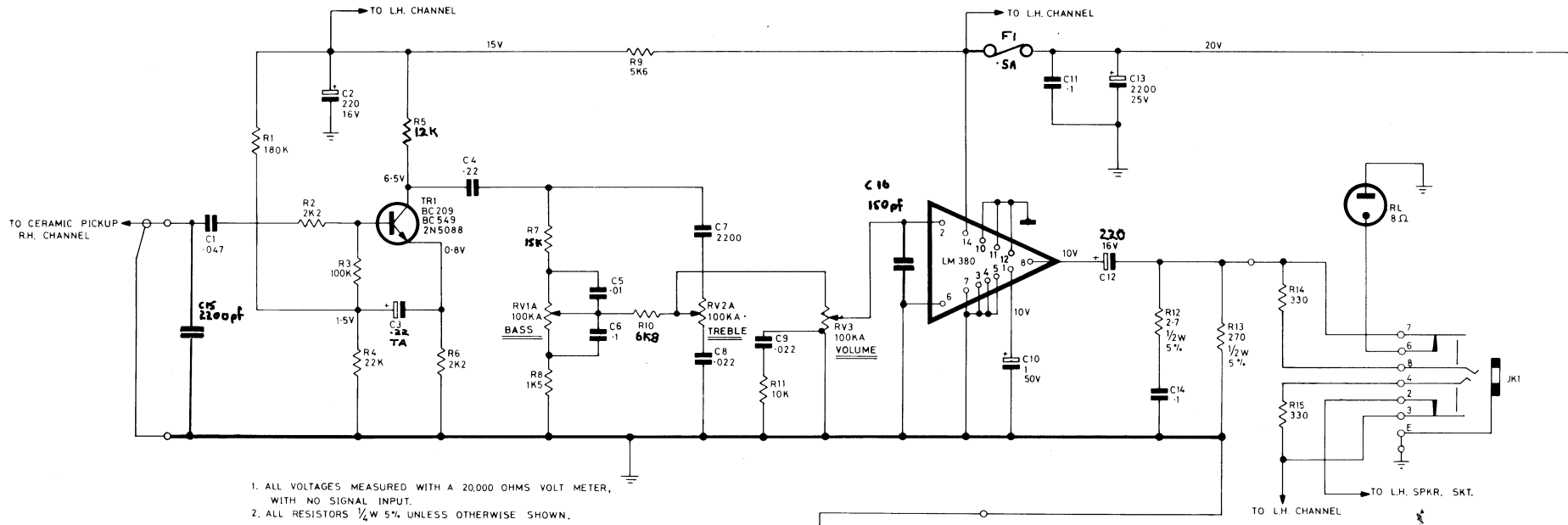
POWER SUPPLY

D.C. voltage for the amplifier is derived from a 16 Volt overwind on the record changer motor. Some record changers do not have overwinds. On unit equipped with these changers a separate power transformer is fitted. (See Fig. 2.)

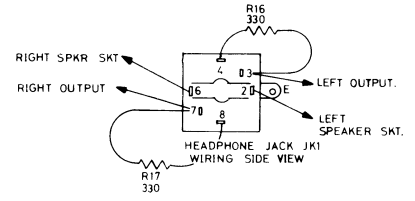
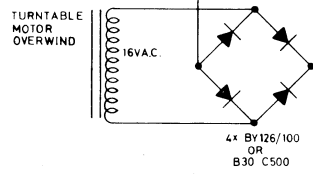
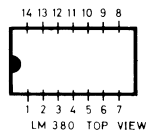
RECORD CHANGER.

On models fitted with the AT100 record changer two additional 220K ohm resistors are wired in parallel with the P.U. to compensate for different cartridge characteristics. (See Fig. 1.)

Description	GENERAL PARTS	Part No.
Connector, 3-way		300046
Connector, 2-way		300047
Switch rocker DPST		880816
.01µF G.M.V. 350V AC ceramic		
Socket 2 pin D.I.N.		845009
Cabinet		160403
Speaker box cabinet		160253
Base, cabinet		125116
Back, speaker		145183
Badge		146095
Board baffle		146588
Connector strip 2-way		300008
Cover		330105
Hinge strut		469028
Knob control		510223
Lid perspex		557005
Loudspeaker 6"		560011
Moulding switch		590013
Moulding lug		590014
Panel top		658209
Panel front		658210
Plug 2 pin D.I.N.		675015
Record changer - B.S.R. C129R		720067
C/W SC5M ceramic cartridge and ST14 stylus.		
Record Changer — Glenburn AT100		720072
Trim Front		920183
Trim Knob		920184



1. ALL VOLTAGES MEASURED WITH A 20,000 OHMS VOLT METER, WITH NO SIGNAL INPUT.
2. ALL RESISTORS 1/4W 5% UNLESS OTHERWISE SHOWN.



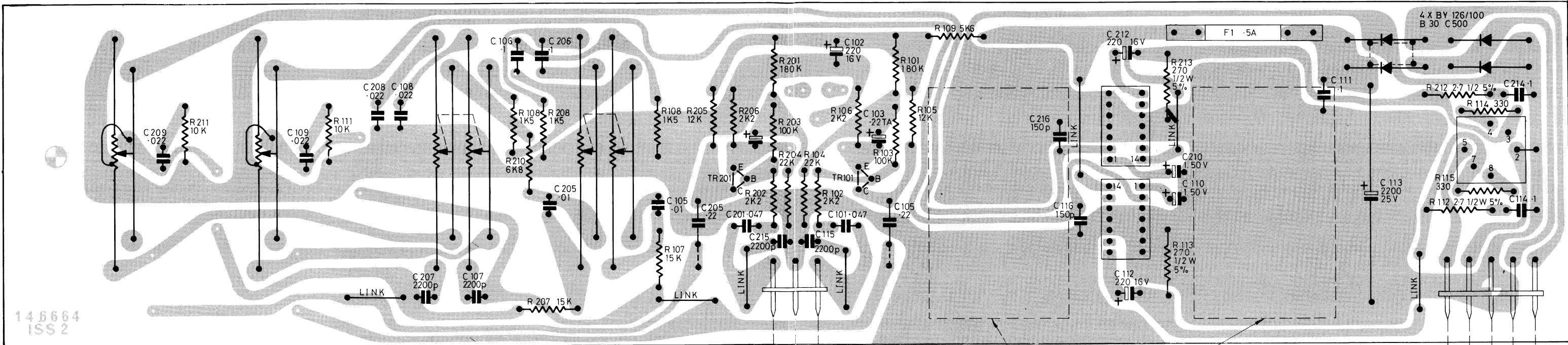
AF-2

RV 103
VOLUME LH
100K

RV 203
VOLUME RH
100K

RV 102
TREBLE
100K

RV 101
BASS
100K



146664
ISS 2

ELECTRICAL PARTS LIST

- Printed Circuit Board 146664
- Clip fuseholder 245106
- Connector 3-way 300044
- Connector 5-way 300045
- Fuse 500mA 450014
- Pot slide 100K lin tap 50K 686708
- Pot slide 100K + 100K lin 686709
- Rectifier B30-C500 720017
- Socket headphones 845069
- I C LM 380 471010
- Heat Sink 838035
- Power Transformer 240V/260V Primary 917556
- Power Transformer 245V Primary 917565

- C1 .047µF 10% 50V poly
- C2 220µF 16V electro
- C3 .22µF 35V 20% tantalum
- C4 .22µF 50V poly
- C5 .01µF 50V poly
- C6 .1µF 50V poly
- C7 2200pF 50V poly

- C8 .022µF 50V poly
- C9 .022µF 50V poly
- C10 1µF 50V electro
- C11 .1µF 63V GMV ceramic
- C12 220µF 16V electro
- C13 .22µF 35V 20% tantalum
- C14 .1µF 63V GMV ceramic
- C15 2200pF 50V poly
- C16 150pF 10% 50V ceramic

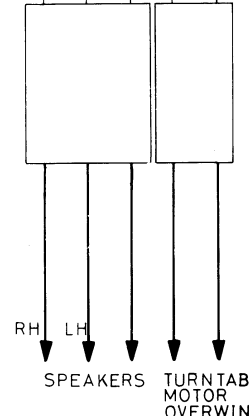
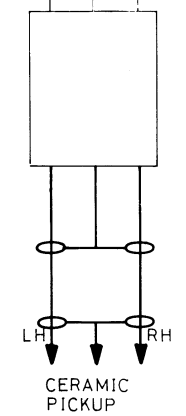
RESISTORS

- R12 2.7 ohm ½w 5% H.S.
- R13 270 ohm ½w 5% H.S.
- All other resistors ¼w or ½w 5% H.S.

TRANSISTOR

- TR1 2N5088 918224
- or SE4010 918088
- or BC549 918225
- or BC209 918114

HEAT SINKS FITTED ON 1oz COPPER
P.C.B ONLY
WEIGHT OF COPPER DENOTED BY NUMBER
ABOVE P.C.B PART NUMBER i.e. -
1oz → 146664 2oz → 146664
HEAT SINK PART N° 838035



AWA THORN AF-2 AMPLIFIER BOARD LAYOUT 3.2.75

NOTE: Always quote the model number and the part number when ordering replacement parts.

The manufacturers reserve the right to vary specifications and/or materials as may be deemed necessary or desirable at any time.

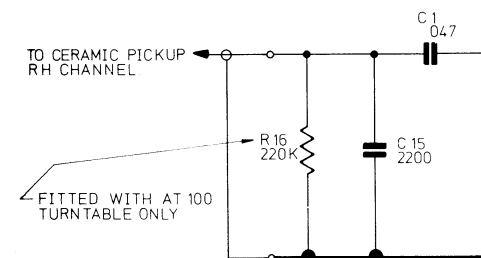


FIG 1

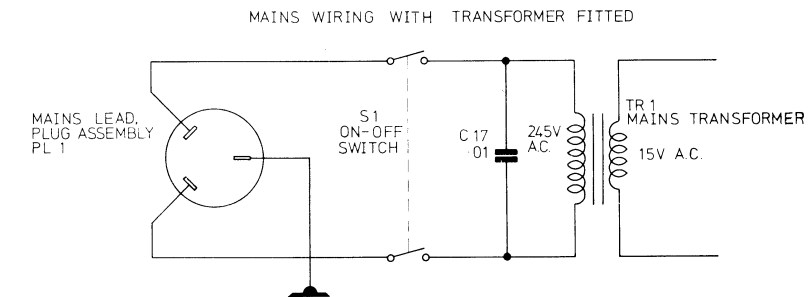


FIG 2